

# #AIREVOLUTION

Introducing



TADIRAN AIROW 3™



# TADIRAN AIROW 3™



## INNOVATIVE TECHNOLOGY

### That Ensures the Indoor Air is Clean and Safe

Tadiran AIROW is a simple plug and play purification technology that is installed inside any air High Wall conditioning system, it produces **Hydrogen Peroxide** (H<sub>2</sub>O<sub>2</sub>) to effectively neutralize pathogens in indoor spaces.





**TADIRAN AIROW 3™**

has been proven to eliminate viruses, SARS-CoV-2 surrogate and bacteria at up to

**99.994%**

Tested in **FDA-cleared laboratory**

<sup>1</sup> TADIRAN AIROW 3 reduced detected Virus MS2 bacteriophage (known as SARS-CoV-2 surrogate) and detected Bacteria Staphylococcus epidermidis aerosol levels by 99.994% within 1 hour (1 cubic meter test chamber).

# WHAT IS Hydrogen Peroxide?



**Hydrogen Peroxide** is a common antiseptic, oxidizing and bleaching agent, known to be a non-selective cleanser that effectively reduces microbial contaminants. Hydrogen Peroxide's properties have made it a popular choice for use in common household products such as toothpaste and even used for sterilization in medical and surgical procedures for more than 100 years.

Hydrogen Peroxide is a **SAFE**, highly effective, nontoxic air disinfectant when used at appropriate levels according to OSHA's<sup>2</sup> standard.

Leveraging water (H<sub>2</sub>O) & Oxygen (O<sub>2</sub>) molecules naturally present in the air, Tadiran AIROW converts them to <15 ppb of Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) spread into the air.

Tadiran AIROW is a **SAFE** and efficient air purification solution which produces very low concentration of Hydrogen Peroxide (> 66 times lower than OSHA's recommendation of 1,000 PPB) that still can achieve > 99.99% reduction of airborne pathogens.

[Download Hydrogen Peroxide white paper →](#)

<sup>2</sup> OSHA STANDERS: The legal airborne permissible exposure limit (PEL) is 1,000 ppb averaged over an 8-hour work shift. Health Guidelines for Hydrogen Peroxide, US Dept. of Labor, Occupational Safety & Health Administration, OSHA - <https://www.osha.gov/>

# WHY USE **Hydrogen Peroxide?**



**Highly effective in neutralizing  
Viruses, bacteria & molds**



**Safe to use in any size space**



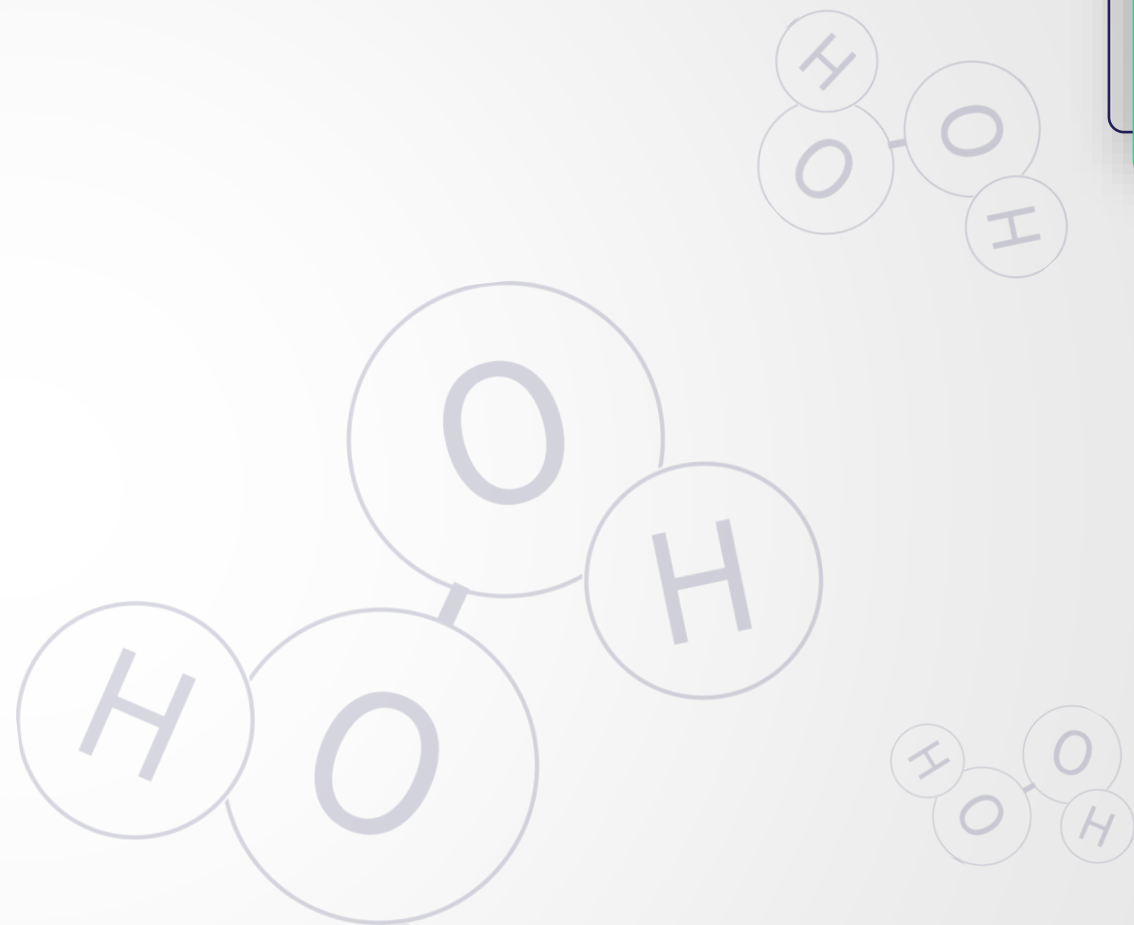
**Purifies large spaces &  
reaches inaccessible areas**



**Has a long-lasting effect**  
up to 24 hours after the unit is turned off



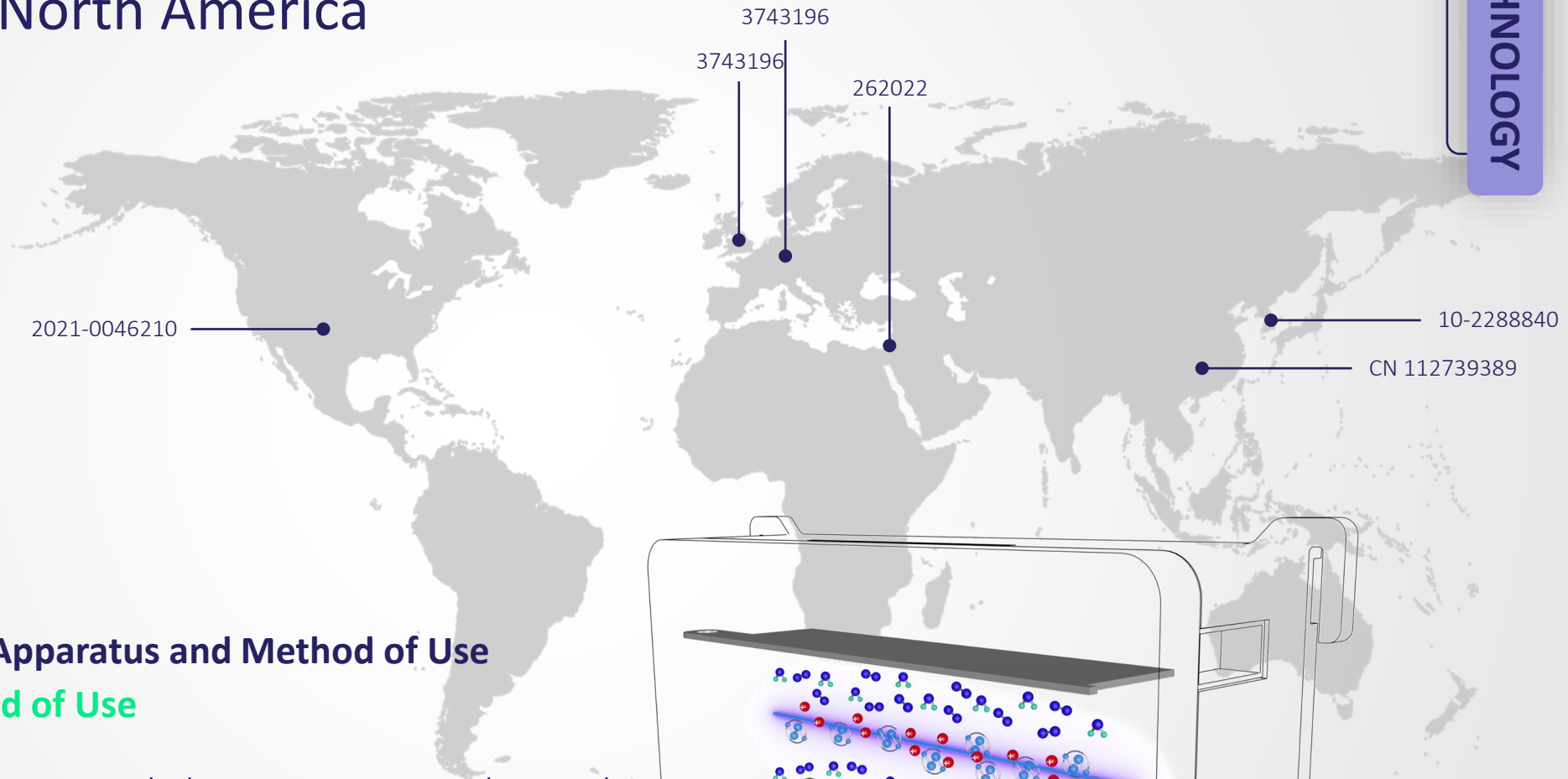
**Doesn't produce any toxic  
byproducts during the activity**





# A RECOGNIZED PATENT

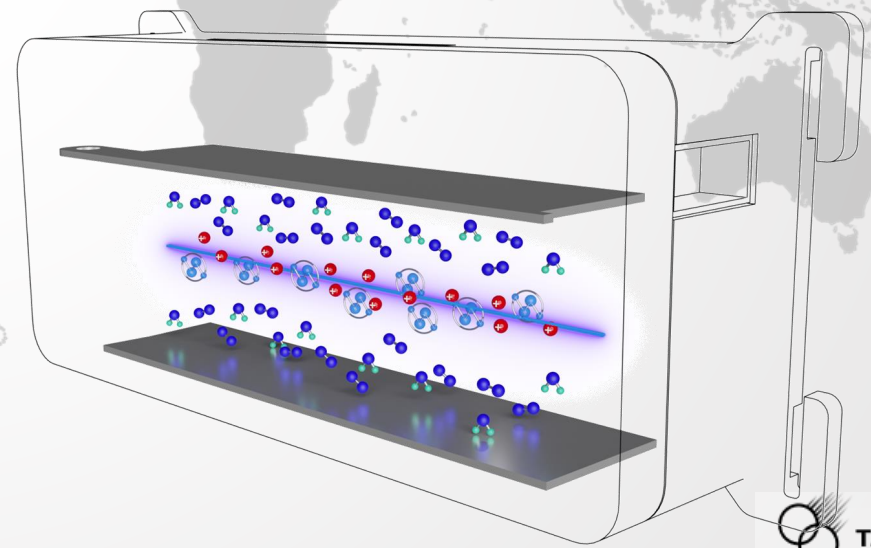
Globally and in North America



## Air Disinfection Apparatus and Method of Use Patented Method of Use

Produces Hydrogen Peroxide by generating an electrical discharge without releasing any ions into the air.

[Download Our Patents](#) →



# WHY ARE WE SAFE?



**Global Standard**

## **TADIRAN AIROW Produces Hydrogen Peroxide In Amounts Far Below The OSHA Approved Limit**

According to OSHA<sup>3</sup>: “The legal airborne permissible exposure limit (PEL) is 1,000 ppb averaged over an 8-hour work shift.”

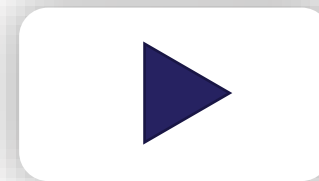
TADIRAN AIROW creates less than 15 ppb, significantly lower than the permissible amount.

<sup>3</sup> Health Guidelines for Hydrogen Peroxide, US Dept. of Labor, Occupational Safety & Health Administration, OSHA - <https://www.osha.gov/>

# HOW IT WORKS

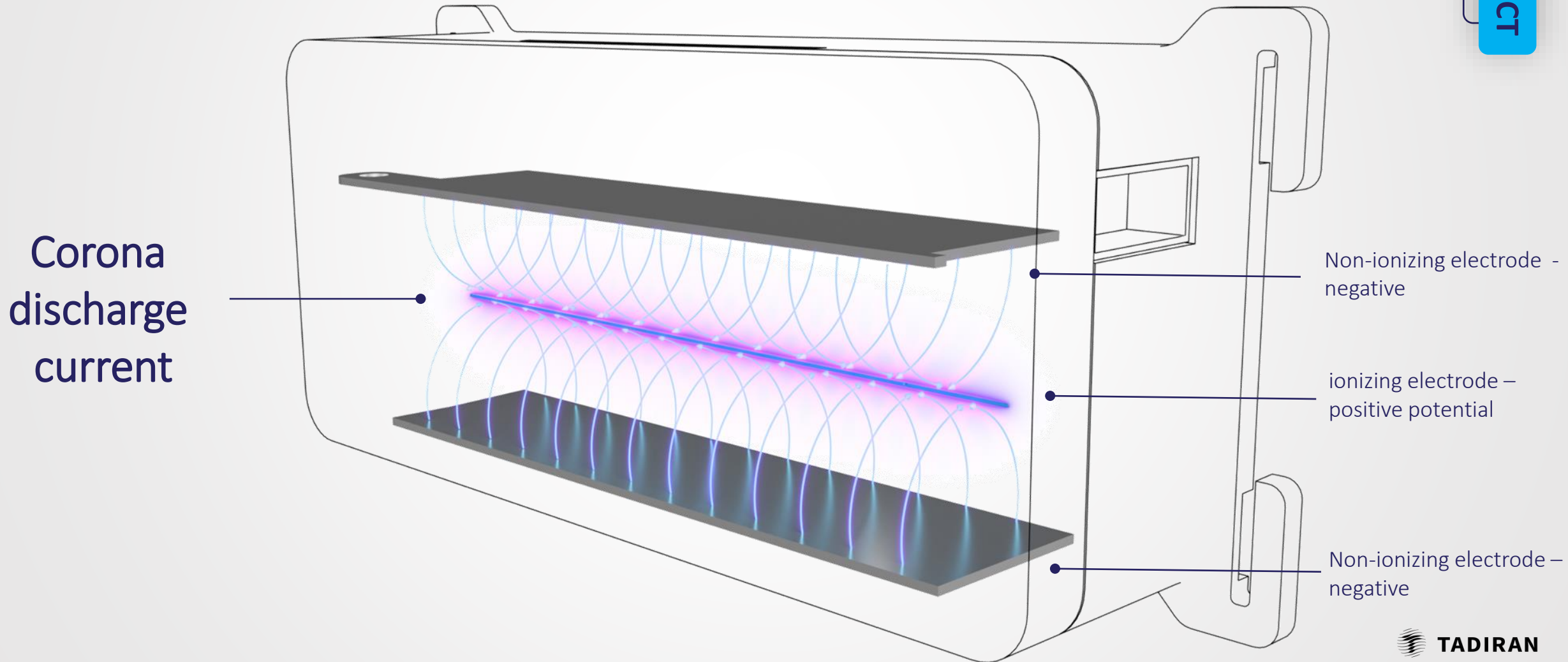
Take an inside look at the **Tadiran AIROW 3™**  
Purification Technology:

- 1** | **O<sub>2</sub> and H<sub>2</sub>O are streamed through the electrical discharge zone**
- 2** | **O<sub>2</sub> is separated into two Oxygen radicals that combine with the H<sub>2</sub>O molecules in the airflow – transforming it into Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>)**
- 3** | **Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) is released into the air of the conditioned space**
- 4** | **Once Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) encounters COVID or other viruses, bacteria, viruses or mold it inactivates and oxidized these into harmless byproducts**





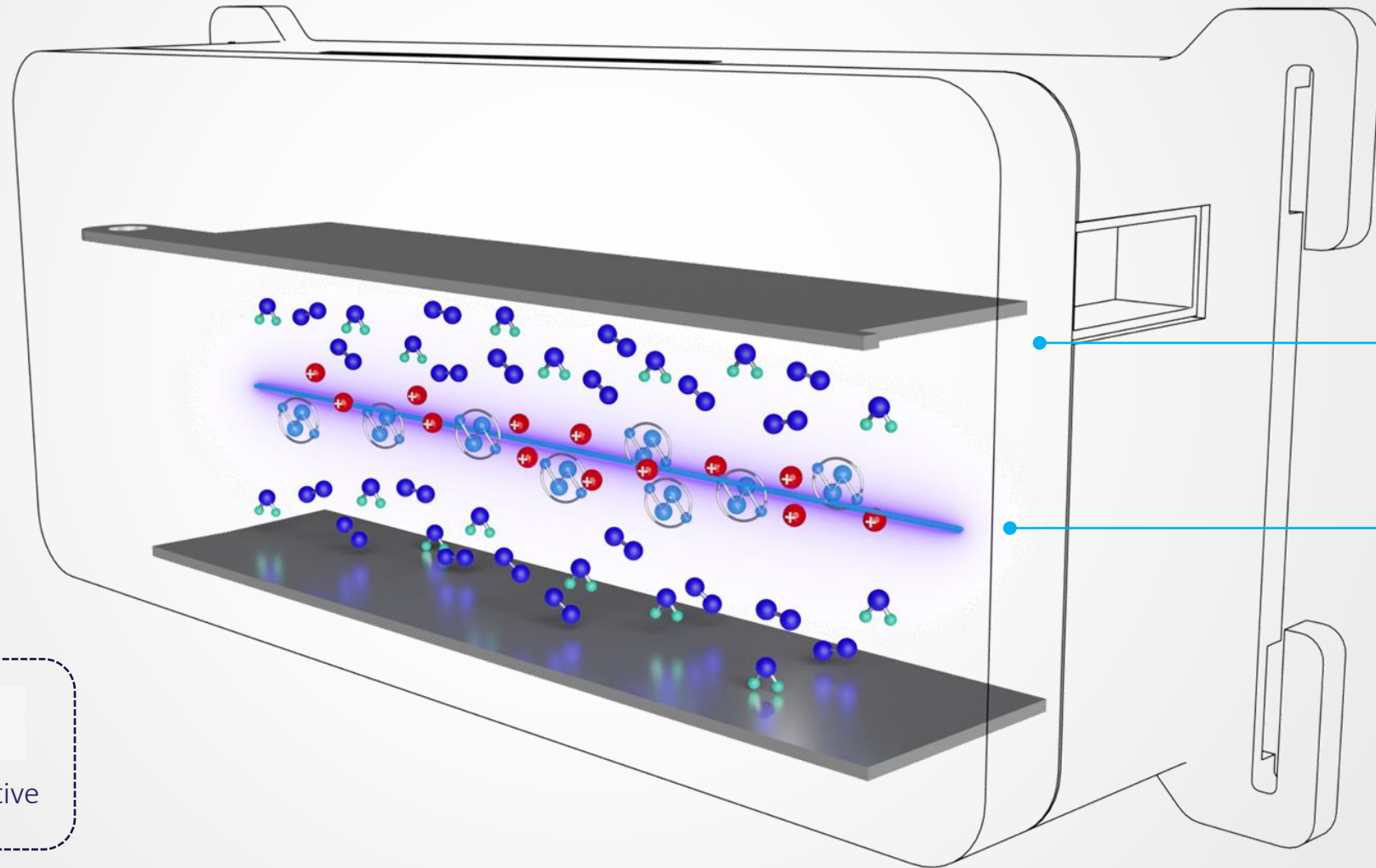
# FORMING THE DISCHARGE CURRENT



# HOW H<sub>2</sub>O<sub>2</sub> IS CREATED

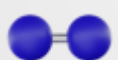
THE PRODUCT

O<sub>2</sub> is separated into two Oxygen radicals that combine with the H<sub>2</sub>O molecules in the airflow – transforming it into Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>)



Screen

Corona discharge current



O<sub>2</sub>



H<sub>2</sub>O<sub>2</sub>

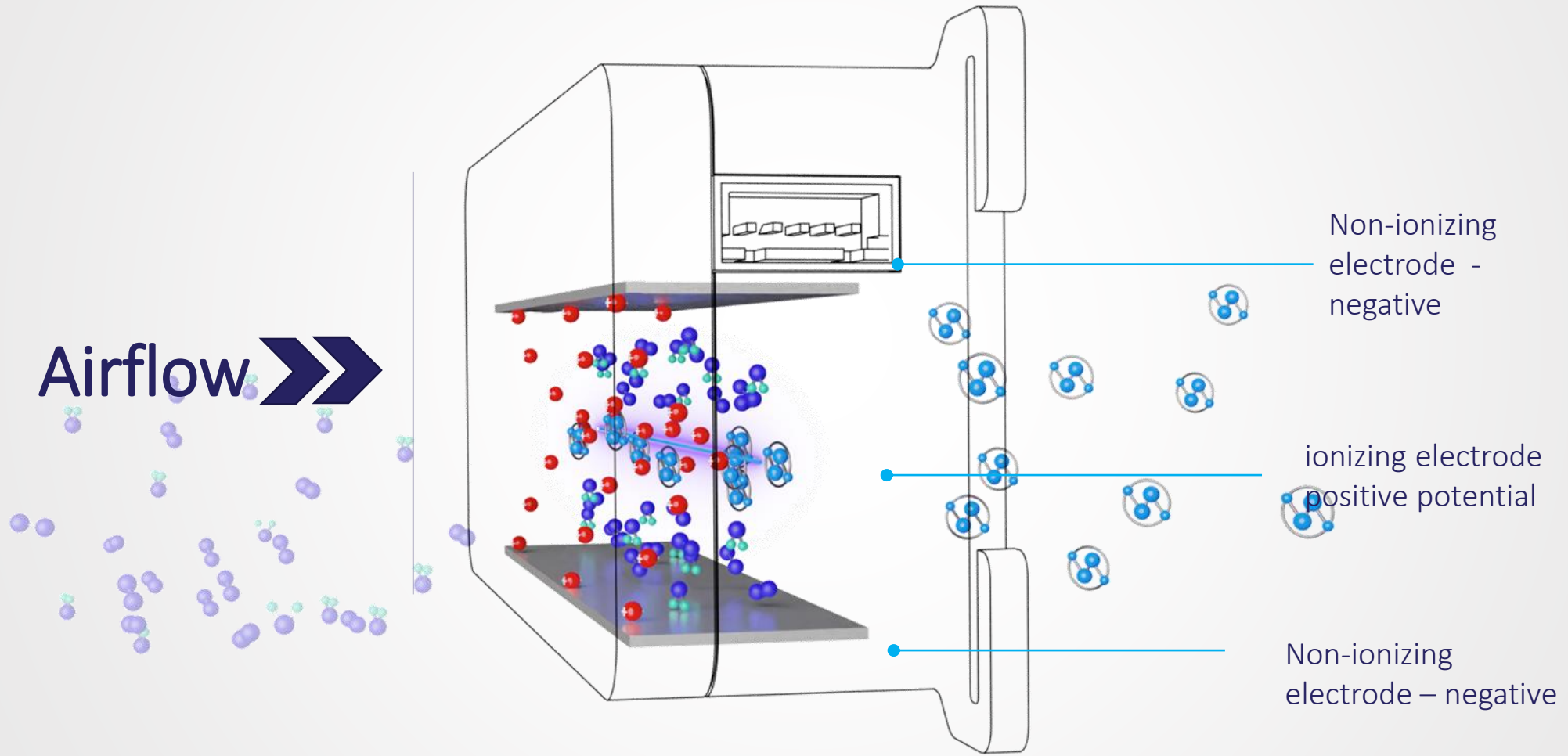


H<sub>2</sub>O



Positive Ion

# ION TRAP



Positively charged ions are attracted to negatively charged screens



# WHAT IT OFFERS?



**TADIRAN AIROW 3™ BENEFITS**

- A** | **Function & Features**
- B** | **Certified & Validated**
- C** | **Proven By Test Results**
- D** | **Live Successful Tests**

THE PRODUCT



# FUNCTION & FEATURES



Eradicator of Bioaerosols - Eliminates Bacteria and Viruses including Sars-Cov-2 surrogate by up to 99.994%



**Built-in monitoring circuit** - for operation indication/BMS integration capability



**Zero Maintenance**



**Long-lasting effect** – continues to purify the air up to 24 hours after the unit is turned off



**Plug & Play** - easy to install in any ducted AC system<sup>4</sup>



**Vast Functionality** – applicable anywhere: from residential, to schools, new construction, hospitality, and senior living



**Low Electricity Usage** - consumption of 1W



**Low TCO**- zero expenses on maintenance and part replacement

<sup>6</sup> Only qualified and licensed HVAC technicians may install this device.



# TADIRAN AIROW 3™

THE VALUE

## THE SOLUTION THAT IS BOTH EFFICTIVE AND SAFE

### SAFE

- ✓ Low levels of Hydrogen Peroxide
- ✓ Ozone Free
- ✓ NO IONS

### EFFICIENT

- ✓ Eliminates testes pathogens by up to 99.994%
- ✓ Proactive and long-lasting effect
- ✓ Covers large spaces & treats inaccessible spaces

### ECONOMICAL

- ✓ Value for money
- ✓ Lower total cost of ownership
- ✓ Zero Maintenance
- ✓ Low energy usage



Zero Maintenance



H2O2  
Proactive Technology



< 5 ppb tested



Highly Effective Against  
Biological Pathogens



Low Energy Usage



Global Patents



Plug & Play



VOC Emission safe



# ALSO AVAILABLE

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TADIRAN AIROW 1 FOR DUCTED AC





Thank you.



**TADIRAN AIROW**

Join our #AIROWEVOLUTION  
[www.airowluftreiniger.de](http://www.airowluftreiniger.de)

Arrow Smart Technologies Berlin Germany



**TADIRAN**